

Remarks

This amendment responds to the outstanding office action mailed from the patent office March 25, 2005. A Petition for extension of time accompanies the Amendment, extending the time to respond for three (3) months, up to and including September 25 (26), 2005.

Applicants offer their gratitude to the Examiner for the indication of allowable subject matter. Applicants, however, have nevertheless opted not to amend, believing strongly in the patentability of the claims in view of the 102(b) art cited. Accordingly, no claims have been amended, and no new matter has been added. Moreover, applicants have reviewed the entire specification and claims in response to the Examiner's suggestion to correct all informalities, and in doing so has found no need for formal correction..

Rejections Under 35 USC §102

Claims 1, 2, 4-12, 14-22 and 24-30 were rejected under 35 USC § 102(b) as anticipated by US Patent No. 5,452,416, to Hilton, et al. (Hilton). The Examiner states that Hilton discloses a method for controlling display of medical images including displaying a plurality of thumbnail size images (Figs. 4, 14 and 16) on a control panel (Figs. 4, 14, 16), displaying on the control panel a first navigation rectangle in the presentation are which encompasses a first set of thumbnail-size medical image (55a-55b in Fig. 6) comprising at least one thumbnail size images displayed on a control monitor (i.e., display container of Fig. 4, 14 and 16), displaying on a first display [i.e., output monitor, 26 of Fig. 9), at least one medical image that corresponds to the first set of thumbnail size medical images; displaying, on the control panel, a second navigation rectangle that encompasses a second set of thumbnail images displayed on a control monitor (i.e., display container; Figs. 4, 14 16), and displaying on a second display (output monitor of Fig. 9) at least one medical image that corresponds to the second set of thumbnail size images (See Abstract, Figs. 4, 6, 9, 11, 14 and 16.

Applicants respectfully disagree. That is, Hilton does not refer at all to thumbnail images, nor do they teach or suggest a navigation rectangle that is able to capture, by user manipulation, one or more thumbnail images displayed, such that the actual corresponding images are displayed on a first or second display corresponding to the capture rectangle.

Applicants' independent claim 1 sets forth a method for controlling display of medical images. The method includes displaying a plurality of thumbnail size medical *images* on a control panel, displaying a first navigation rectangle on the control panel about a first set of thumbnail size medical images, comprising at least one of said thumbnail size medical images displayed on said control monitor; displaying, on a first display, at least one medical image that corresponds to said first set of thumbnail size medical images; displaying, on said control panel, a second navigation rectangle that encompasses a second set of thumbnail size medical images comprising at least one of said thumbnail size medical images displayed on said control monitor; and displaying, on a second display, at least one medical image that corresponds to said second set of thumbnail size medical images.

Applicants' Independent claim 11 sets forth a medical informatics system having a control panel for displaying a plurality of thumbnail size medical images, for displaying a first navigation rectangle that encompasses a first set of thumbnail size medical images comprising at least one of said thumbnail size medical images displayed on said control monitor, and for displaying a second navigation rectangle that encompasses a second set of thumbnail size medical images comprising at least one of said thumbnail size medical images displayed on said control monitor; a first display, coupled to said control panel, for displaying at least one medical image that corresponds to said first set of thumbnail size medical images; and a second display for displaying at least one medical image that corresponds to said second set of thumbnail size medical images.

Applicants' independent claim 21 sets forth a computer readable medium comprising a plurality of instructions, which when executed, causes the computer to perform the steps of displaying a plurality of thumbnail size medical images on a control panel, displaying, on said control panel, a first navigation rectangle that encompasses a first set of thumbnail size medical images comprising at least one of said thumbnail size medical images displayed on said control monitor, displaying, on a first display, at least one medical image that corresponds to said first set of thumbnail size medical images, displaying, on said control panel, a second navigation rectangle that encompasses a second set of thumbnail size medical images comprising at least one of said thumbnail size medical images displayed on said control monitor; and displaying, on a second

display, at least one medical image that corresponds to said second set of thumbnail size medical images.

Hilton discloses an automated computer-display system for storage, retrieval and presentation of medical image sequences, particularly in MRI-based imaging systems. The Hilton computer display system includes a first display container including preselected presentation areas in a substantially rectangular array, a second display container including preselected presentation areas in a substantially rectangular array, an image database including a plurality of images separated into image groups, where each image group is indexed by a unique group identification, and each image group is partitioned into one or more series for incremental presentation. Each image series is ordered by assignment of each image to a position in a monotonically changing sequence, and a mechanism connected to the image database and to the first and second display containers is responsive to group identification for displaying at least two image series of an image group indexed by patient identification. Each image series is displayed in order of its sequence in a respective display container such that each presentation area of the respective display container includes no more than one image. Or, in the alternative, all of the image series are displayed in one display container and each image series is displayed on image at a time in the order of its respective sequences in a respective presentation area of the display container.

The Hilton system teaches an output device 25 in the form of a multi-screen apparatus comprising three separate output monitors 26, 27, 28, connected by a coupling mechanism 29. An application process 12 specifies how and which images, stored in working memory 33, are output to the three monitors. Control over the display apparatus 25 is provided by the coupling mechanism 29 (video card). The invention includes at least two modes of presenting medical image series (e.g., MRI image series), monitor mode (Hiltons' Fig. 3), and Series mode (Fig. 4). In monitor mode, all but one display is used to display the images series, where the other monitor is used as a working palette. The coupling is employed to synchronize presentation of axial T1 and T2 series so that whenever an image of one series is changed to the next image in the series, the other series is changed identically to display the image of the other series occupying the same sequence position. The active monitor is indicated by the presence of the control panel, and the

cursor may move through a boundary of a first monitor into a boundary of a second monitor (adjacent the first monitor).

Hilton displays images of image series in its displays. Applicants' inventions, as set forth in their independent claims, provide a set of thumbnail images on its control monitor, which are quite low resolution and quickly transferred. The user is able to manipulate the control monitor using a navigation rectangle to capture at least one thumbnail image, and displays on a first display at least one medical image (not a thumbnail) corresponding to the first set of thumbnail images displayed on the control monitor. The control panel also displays a second navigation rectangle encompassing a second set of thumbnail images, such that at least one medical image corresponding to the second set of thumbnail images is displayed on a second display.

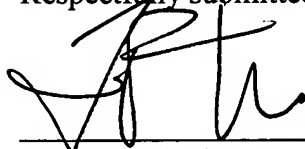
While Hilton includes the ability to move images to a working palette-type display by copying, applicants' inventions, as set forth in each independent claim, provides a mechanism for using a monitor as a display controller to display of sets of thumbnail images, such that capture on the display monitor of a particular thumbnail image, using a navigation rectangle, causes the actual image (not the thumbnails) to be displayed, as per the navigation rectangle, on the corresponding first and second displays. Hilton does not show each of applicants' claimed elements, so applicants respectfully assert that the rejection of any independent claim under Hilton cannot be maintained.

That is, Hilton does not teach or suggest a method for controlling display of medical images that includes displaying a plurality of *thumbnail size* medical *images* on a control panel, where the control panel displays a first navigation rectangle surrounding a first set of thumbnail size medical images, the first set comprising at least one thumbnail size medical image, and displaying on a first display, at least one medical image that corresponds to the first set of thumbnail size medical images; displaying, on the control panel, a second navigation rectangle that encompasses a second set of thumbnail size medical images including at least one of said thumbnail size medical images displayed; and displaying, on a second display, at least one medical image that corresponds to the second set of thumbnail size medical images. Moreover, Hilton

does not utilize thumbnail images, nor do the manipulations implemented on the Hilton control panel manifested in images being displayed automatically on first and second displays.

Accordingly, applicants respectfully assert that independent claims 1, 11 and 21 are not anticipated by Hilton under 102(b), and request withdrawal of the rejection of those independent claims. For that matter, because claims 2, 4-10, claims 12, 14-20, and claims 22, and 24-30 depend from claims 1, 11 and 21, respectively, applicants respectfully assert that claims 2, 4-10, 12, 14-20, 22, and 24-30 are not anticipated under 102(b) in view of Hilton, and request withdrawal of the rejection of those claims for at least the reasons set forth for the patentability of claims 1, 11 and 21 under 102(b) in view of Hilton. Finally, while applicants have not amended claims 3, 13 or 23 as suggested by the Examiner, applicants believe that those claims are also patentably distinguishable from Hilton under 102(b) and respectfully requests allowance of those claims in view of Hilton.

Respectfully submitted,



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